GM 727 Comp. A + B

Technical Datasheet

Filled polyurethane casting resin

Product is available in other colours

Applications

foundry models
form recordings
control castings
negatives

Properties

large volumes possible	
dimensionally accurate	
coefficient of linear expansion	43 x 10^{-6} 1 / K
filled	

Processing data

Product		**Mixture**	**Resin**	**Hardener**
		GM 727 Comp. A + B	GM 727 Comp. A	GM 727 Comp. B
Colour		beige	white	brown-transparent
Mixing ratio	**p.b.w.**		100	22
Viscosity at 25 °C	mPas	6000 ± 800	30000 ± 4500	100 ±30
Density at 20 °C	g/cm³	1,70 ± 0,05	1,81 ± 0,05	1,23 ± 0,03
Pot Life	minutes	25 - 35		
Demoulding time	hours	12 - 16		

Physical data

Properties	**Inspect. Requirements**	**Unit**	**Value**
Flexural strength	DIN EN ISO 178*	MPa	75 ± 5
Flexural elongation at break	DIN EN ISO 178*	%	1,05 ± 0,05
Flexural modulus	DIN EN ISO 178*	MPa	8250 ± 500
Compressive strength	DIN EN ISO 604*	MPa	100 ±10
Impact resistance (Charpy)	DIN EN ISO 179-1*	kJ/m²	5,5 ±0,5
Heat deflection temperature HDT	DIN EN ISO 75 B*	°C	76 ± 3
Coefficient of linear expansion 20 - 50 °C	Internal audit/Dilatometer	$10^{-6}K^{-1}$	≈ 43
Shore hardness	DIN ISO 48-4*	Shore D	90 ± 3

* based on

Sales units (packages)

GM 727 white, comp. A, 5 kg drum
GM 727 white, comp.A, 15 kg drum
GM 727 white comp.A, 30 kg drum
GM 727, brown transparent, comp.B, 1,100 kg bottle
GM 727 brown transparent, comp.B, 3,300 kg can
GM 727 brown transparent comp.B, 6,600 kg can
additional products
Release agent T1-1 liquid whitish 1 ltr. bottle
Release agent T1-1 liquid whitish 5 ltr. can

cleaning agent ebaclean, colourless 5 l can

Processing instructions

Material- and processing temperature: between 18 - 25 °C.
Close containers after use.

Seal porous mould surfaces first

For optimal mould release, we recommend using a suitable release agent (e.g., T 1–1), which can be easily applied with a brush. The mold should be treated 2–3 times and aired for about 20 minutes after each application.

The mixing ratio of resin and hardener must be adhered to according to the specifications.

Component A may undergo phase separation depending on the storage duration, so it must be thoroughly stirred before use.

For bubble-free mixing, we recommend our star stirrer.

Resin residues on stirring rods, etc., can be easily cleaned with ebaclean.

General

GM 727 is a highly filled casting resin based on polyurethane.

This casting resin is particularly suitable for the solid casting of large-volume model tooling requiring very high dimensional accuracy.

The filler content can be further increased by adding approximately 70% Filler F-B or approximately 50% plastic granulate. However, the resulting increase in viscosity means that freedom from air bubbles can no longer be guaranteed. Therefore, we recommend using a surface resin (e.g. OH 49-1).

All specified characteristic values were determined after thermal conditioning at 80 °C for 8 hours.
The pot life was determined in accordance with internal test procedures using a 200 g sample at room temperature (approx. 23 °C).
The demolding times refer to demolding at room temperature.

Storing

Storage at room temperature 18-25 °C.

Opened containers should be closed immediately after use and should be used up as soon as possible.

Please refer to the product labels for the shelf life of the material.

Safety measure

Please follow the precaution instructions of the Government Safety Organisation of the chemical industry when working with this material.

Please refer to the respective safety data sheets

Waste Disposal

The cured materials can be disposed of as household or commercial waste in consultation with the respective competent authority.

Uncured products must be properly disposed of in consultation with the competent authority.

For further questions, our product safety department is at your disposal.

Compliance & Legal

The information and recommendations provided are based on careful evaluation and practical experience. They reflect the state of our knowledge at the time of provision. Updates may be made without notice.
The information is intended as general guidance and does not constitute a warranty of specific characteristics or properties of the product. Due to the wide range of potential applications and processing methods, not all individual use cases can be covered.

The product must be used in accordance with the applicable safety and usage instructions. No liability will be accepted for improper use or application outside the intended purpose.
Unless otherwise agreed, it is the responsibility of the user to independently assess the suitability of the product for the intended application and processing method.
The information provided does not release the user from the obligation to seek individual advice in cases of uncertainty regarding specific applications.
Statutory warranty rights remain unaffected.